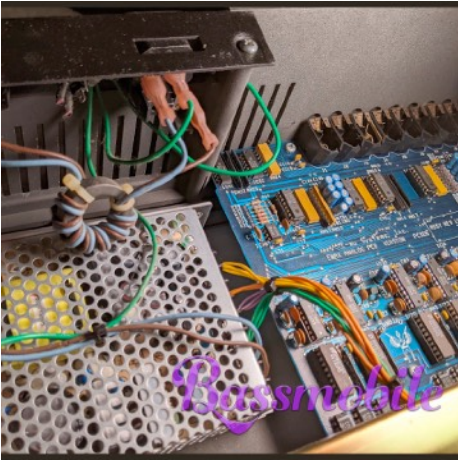


Installation Preparations

Use extreme caution at all times!
120 VOLT A/C Power can KILL YOU!
You do this modification at your own risk of loss of life and property!



Bassmobile

EMAX Solid-State SMPS

When you feel a static shock from touching something, that zap is in the area of 3000 - 4000 volts!

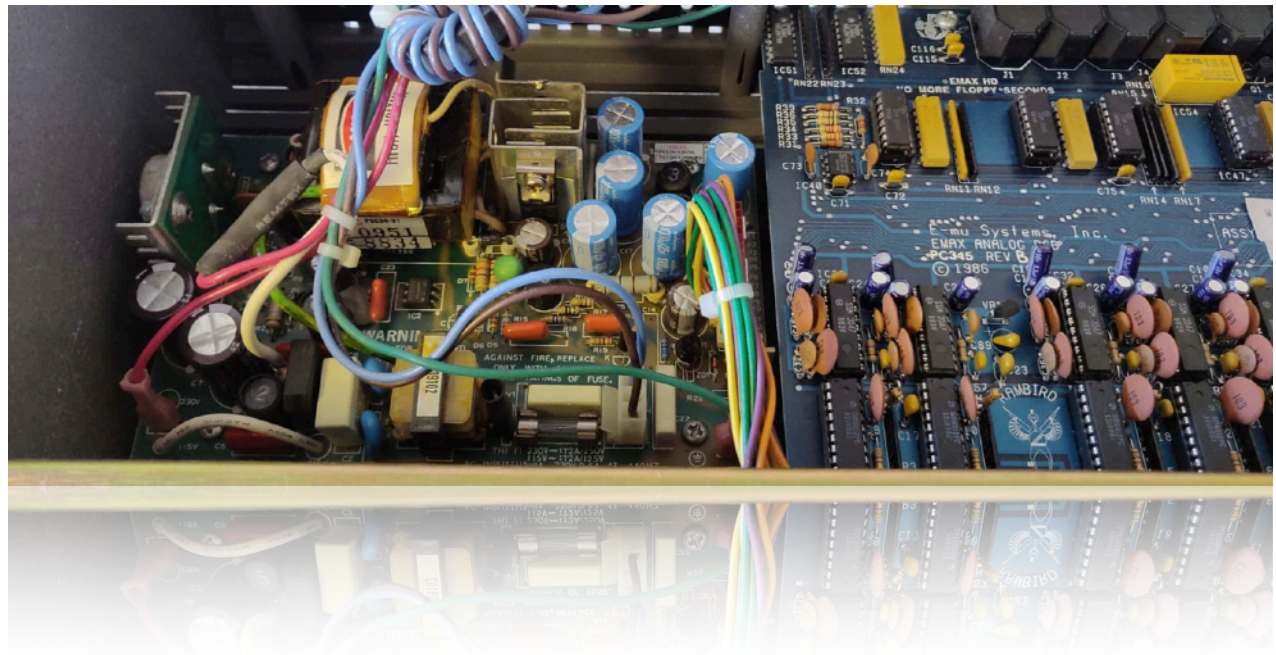
As little as 10 volts discharged can damage an EPROM, causing your EMAX to have a serious malfunction. You can damage an EPROM without even feeling a static shock. Please read this page carefully and follow these steps to minimize electrostatic discharge!

DISCLAIMER: You agree to release Bassmobile llc, its agents and assigns from all claims of liability, loss or damage of property related to the purchase and utilization of this product by any means. Use at your own risk.

TIPS TO AVOID ELECTROSTATIC DISCHARGE:

- Gather all the tools you need before installing your EMAX SMPS.
 - Avoid moving around the room to get things. It brings the possibility of static buildup and discharge.
 - Don't work on carpeted floors.
 - Touch the metal case to discharge static before you touch any interior circuitry.
 - Always avoid touching circuit board components.
 - Wear an anti-ESD strap or other anti-static device if you have it.
- Carefully follow the steps above and your installation should be a success!

VIEW INSIDE EMAX I - LOOKING AT STOCK PSU BEFORE REMOVAL



E-mu Systems *EMAX*

Solid-State SMPS Upgrade:

Tools used:

- Phillips screw driver
- Flush cut dykes, terminal crimps

Optional:

- Soldering Iron, Leaded Solder & Flux Paste

1. Gain access:

UNPLUG YOUR EMAX FROM THE WALL!

Prepare your workspace, a clean table or bench, Use a doubled up blanket or foam pad. Place EMAX upside down (keyboard down) on your padded surface.

Remove the bottom aluminum sheet panel. Secured with ten large Phillips screws, around perimeter. Loosen screws and set aside.

2. Remove stock PSU:

With the EMAX upside down, and the output jacks facing away from you, the stock PSU is located on your left hand side. Remove all plugs that attach. Remove the four Phillips screws.



STOCK PSU

3. Remove the PSU Components: (OPTIONAL)

It is optional to remove the components from the stock PSU in order to use the PCB as a mounting plate for the new SMPS. The SMPS comes to you with high quality GORILLA adhesive tape affixed to the bottom. You can affix this to the EMAX chassis if you do not wish to take the old PSU apart for a mount plate.

4. Remove stock plug ends:

Using a flush cut pair of dykes clip the wires as flush to the PSU plug sockets as possible. You will have one large flat plug with colored wires. Three wires emerge from the AC socket to provide power. Do not confuse the green earth ground "≡" wire with the DIGITAL GND. They are the same color, but entirely different circuits. Crimp ring terminals are supplied with the kit, but you do not need to use them. It's up to you.

Strip 6-8mm of insulation off each of the wires you clipped. Group wires of similar colors together. You may wish to install the wires to the SMPS now, or you may do it after the next step. Use a PHILLIPS Screw driver to attach wires to the SMPS output terminals, and follow th

SMPS WIRING TABLE:

FROM EMAX DIGITAL BOARD:

YELLOW	-->	+5V (5VDC)
ORANGE	-->	+V2 (+12VDC)
PURPLE	-->	-V3 (-12VDC)
GREEN	-->	COM (digital ground)

FROM AC LINE IN:

BROWN	-->	N (120vac neutral)
BLUE	-->	L (120vac line)
GREEN	-->	≡ (earth ground)

Extreme caution must be taken at all times! You are doing open heart surgery on a 30+ year old electronic instrument. One ESD discharge can fry any one of the vintage IC's on the main board! **BE VERY CAREFUL!**

You may wish to tin the ends of the wires with solder. You can also solder similarly colored wires from the digital board together in bunches. EMAX originally did not come with a switching power supply, and users needed to manually select the input voltage with a rear mounted switch. Stock it only supported 110v or 220v. These wires can be cut, and the switch left in place. It will of course no longer serve a purpose or function. You may wish to label the switch on the rear of your EMAX with something like "Unused". Your new SMPS (Switch Mode Power Supply) will automatically switch for any input voltage around the world!

5. Mounting the SMPS

Find a location for your new SMPS, making sure that all wires will reach the mounting area. Use 90% Isopropyl Alcohol and a new scotch bright pad to clean the surface where you plan to locate the SMPS. Wait for the alcohol to evaporate, then remove the backing from the adhesive strips and press down firmly on the SMPS metal chassis. THE ADHESIVE IS VERY PERMANENT! MAKE SURE YOU TAKE YOUR TIME AND GET THIS STEP RIGHT THE FIRST TIME! NO SECOND CHANCE AT THIS ONE!

Congratulations on a job well done, and an awesome upgrade for a legendary sampler.

Enjoy!

Bassmobile.org